

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Company**

Arkema Inc.  
900 First Avenue  
King of Prussia, Pennsylvania 19406

Thio and Fine Chemicals

**Customer Service Telephone Number:** (800) 628-4453  
(Monday through Friday, 8:00 AM to 5:00 PM EST)

**Emergency Information**

**Transportation:** CHEMTREC: (800) 424-9300  
(24 hrs., 7 days a week)  
**Medical:** Rocky Mountain Poison Center: (866) 767-5089  
(24 hrs., 7 days a week)

**Product Information**

**Product name:** AZDN E  
**Synonyms:** Not available  
**Molecular formula:** C<sub>8</sub>H<sub>12</sub>N<sub>4</sub>  
**Chemical family:** Nitriles  
**Product use:** Initiator

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

**Color:** white  
**Physical state:** solid  
**Form:** powder  
**Odor:** None.

**\*Classification of the substance or mixture:**

Self-reactive substances and mixtures, Type C, H242  
Oral: Acute toxicity, Category 4, H302  
Inhalation: Acute toxicity, Category 4, H332  
Chronic aquatic toxicity, Category 3, H412

\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**GHS-Labeling**

Hazard pictograms:



Signal word:

**Danger****Hazard statements:**

H228 : Flammable solid.  
H242 : Heating may cause a fire.  
H302 + H332 : Harmful if swallowed or if inhaled  
H412 : Harmful to aquatic life with long lasting effects.

**Supplemental Hazard Statements:**

May form combustible dust concentrations in air. Temperature controlled. Thermally unstable - refrigeration required. Releases irritating and highly toxic vapors on decomposition.

**Precautionary statements:****Prevention:**

P210 : Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P220 : Keep/Store away from clothing/ combustible materials.  
P234 : Keep only in original container.  
P261 : Avoid breathing gas/mist/vapours/spray.  
P264 : Wash skin thoroughly after handling.  
P270 : Do not eat, drink or smoke when using this product.  
P271 : Use only outdoors or in a well-ventilated area.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves/ eye protection/ face protection.

**Response:**

P301 + P312 : IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 : Call a POISON CENTER/doctor if you feel unwell.  
P330 : Rinse mouth.  
P370 + P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

P403 + P235 : Store in a well-ventilated place. Keep cool.  
P411 : Maximum storage temperature is specified on label and in section 7 of SDS.  
P420 : Store away from other materials.

**Disposal:**

P501 : Dispose of contents/ container to an approved waste disposal plant.

**Supplemental information:**

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**Potential Health Effects:**

Effects due to processing releases: Irritating to eyes, respiratory system and skin. Can be absorbed through the skin.

May also cause: vomiting, fatigue, confusion, breathing difficulties, shortness of breath, convulsions, death, (severity of effects depends on extent of exposure).

**Other:**

Under normal processing conditions, this product will release fume and/or vapor of variable composition, possibly including tetramethylsuccinonitrile (TMSN). Tetramethyl succinonitrile (TMSN) is highly toxic if swallowed, inhaled, or absorbed through the skin. Seek immediate medical attention if signs of nervous system effects occur, such as: dizziness, nausea, vomiting, severe headache, respiratory distress, convulsions or unconsciousness.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
	78-67-1	> 99 %	H302, H332, H412, H242, H401

\*\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

**4.1. Description of necessary first-aid measures:**

**General advice:**

POISON! THIS PRODUCT UNDER CERTAIN CONDITIONS MAY DECOMPOSE TO TETRAMETHYLSUCCINONITRILE (TMSN). FOR EXPOSURE TO TETRAMETHYLSUCCINONITRILE (TMSN): Get medical attention. Call a Poison Control Center. Carry patient to fresh air, have patient lie down. Remove contaminated clothing, but keep patient warm. Start treatment immediately. Rescuers must use care to prevent contact with this material. FOR EXPOSURE TO AZODIISOBUTYRONITRILE:

**Inhalation:**

If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Call a Poison Control Center.

**Skin:**

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**

Immediately flush eye(s) with plenty of water.

**AZDN E****Ingestion:**

If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Get medical attention. Never give anything by mouth to an unconscious person. Rinse mouth. Call a Poison Control Center.

**4.2. Most important symptoms/effects, acute and delayed:**

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information) and Section 11 (Toxicology Information) of this SDS.

**4.3. Indication of immediate medical attention and special treatment needed, if necessary:**

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

**Notes to physician:**

GENERIC FIRST AID, ANTIDOTE TREATMENT: IF EXPOSED TO TETRAMETHYLSUCCINONITRILE (TMSN), A DECOMPOSITION PRODUCT OF AZODIISOBUTYRONITRILE (AZDN): Determine if the patient exhibits signs suggestive of cyanide poisoning following exposure to TMSN. Symptoms of cyanide poisoning include a rapid onset, immediately affecting the heart, causing sudden collapse and possibly causing a seizure or coma, very pink or cherry red skin, very fast breathing, and very fast or slow heartbeat. Breath may smell like bitter almonds.

FOR EXPOSURE TO TETRAMETHYLSUCCINONITRILE (TMSN): In case of contact with TMSN (a decomposition product of azodiisobutyronitrile), immediately flush with plenty of water while removing contaminated clothing and shoes. Administer 100% oxygen. Administer ANTIDOTE TREATMENT as described below. Continue to flush eyes and/or skin with plenty of water for at least 15 minutes. Wash clothing before reuse. Destroy contaminated shoes and contaminated leather goods. IF SWALLOWED: administer 100% oxygen. Administer antidote treatment as described below. IF INHALED: immediately remove to fresh air. If not breathing, give artificial respiration. Administer ANTIDOTE TREATMENT as described below.

GENERIC FIRST AID, ANTIDOTE TREATMENT: Break an amyl nitrite pearl in a cloth and hold pearl lightly under nose for 30 seconds. Repeat inhalation of amyl nitrite at about 30-second intervals. Resume oxygen between amyl nitrite. Use a new amyl nitrite pearl every 3 minutes until directed otherwise by medical personnel. If the patient exhibits signs suggestive of cyanide poisoning following the exposure to tetramethylsuccinonitrile (TMSN) and has not responded to amyl nitrite, inject intravenously 10 milliliters of a 3 percent solution of sodium nitrite at a rate not greater than 2.5 to 5.0 milliliters per minute. Follow directly with 50 milliliters of a 25 percent solution of sodium thiosulfate at the same rate by the same route. Keep patient under observation. Oxygen therapy may be of value in combination with nitrite and sodium thiosulfate treatment. If signs of poisoning persist or reappear, repeat nitrite and thiosulfate injections 1 hour later in one-half the original doses.

**5. FIREFIGHTING MEASURES****Extinguishing media (suitable):**

Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Dry chemical

**Extinguishing media (unsuitable):**

High volume water jet

**Protective equipment:**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

**Further firefighting advice:**

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Do not use a solid stream of water.

A solid stream of water can cause a dust explosion.

Fight fire with large amounts of water from a safe distance.

Cool closed containers exposed to fire with water spray.

Closed containers of this material may explode when subjected to heat from surrounding fire.

After a fire, wait until the material has cooled to room temperature before initiating clean-up activities.

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

**Fire and explosion hazards:**

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

Dust may form explosive mixture in the atmosphere if concentrations are higher than 0.02 kg/m<sup>3</sup>

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds

Tetramethylsuccinic acid dinitrile

Nitrogen

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel.

Ventilate the area. Eliminate all ignition sources. Avoid dust formation and dispersal of dust in the air. Wet down (dampen) the spilled material with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**Protective equipment:**

Appropriate personal protective equipment is set forth in Section 8.

**7. HANDLING AND STORAGE****Handling****General information on handling:**

Temperature controlled! Cool and maintain proper temperature for product.  
Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.  
Do not taste or swallow.  
Do not get in eyes, on skin, or on clothing.  
Avoid breathing dust.  
Keep away from heat, sparks and flames.  
No smoking.  
Use only with adequate ventilation.  
Wash thoroughly after handling.  
Prevent product contamination.  
Keep container tightly closed and away from combustible materials.  
Keep only in the original container.  
Avoid creating dust in handling, transfer or clean up.  
Prevent dust accumulation.  
Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces.  
Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.  
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.  
Container hazardous when empty.  
Follow label warnings even after container is emptied.  
RESIDUAL DUSTS MAY EXPLODE ON IGNITION.  
DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.  
Do not reuse container as it may retain hazardous product residue.  
Improper disposal or reuse of this container may be dangerous and/or illegal.  
Emptied container retains product residue.

**Storage****General information on storage conditions:**

Keep refrigerated. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Outside or detached storage is preferred. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Store out of direct sunlight in a cool well-ventilated place. Store in original container. Store away from combustibles and materials to avoid. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654.  
Refer also to National Fire Protection Association (NFPA) Code 400, Hazardous Materials Code.

**Storage stability – Remarks:**

Keep refrigerated. Follow the recommended storage temperatures provided in this Section in order to maintain stability and oxygen content.

**Storage incompatibility – General:**

Store separate from:

Ketones

Aldehydes

Heptane

Alcohols

Concentrated solutions and when hot : risk of violent reaction

Alkali metals

**Temperature tolerance – Do not store above:**  
77 °F (25 °C)

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Airborne Exposure Guidelines:**

**Butanedinitrile, tetramethyl- (3333-52-6)**

US. ACGIH Threshold Limit Values

Skin designation

**Remarks:**

Time weighted average

Can be absorbed through the skin.

0.5 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL:

0.5 ppm (3 mg/m3)

Skin designation

**Remarks:**

Can be absorbed through the skin.

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

**Recommended monitoring procedures:**

Exposure limits are provided for Tetramethylsuccinonitrile, a thermal decomposition product. It can be absorbed by the skin even if its concentration in the air is lower than the standard above.

**Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Check that all dust control equipment such as local exhaust ventilation, material transport systems, and air-material separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent

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the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

**Respiratory protection:**

Avoid breathing dust. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

**Skin protection:**

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

**Eye protection:**

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Color:</b>	white
<b>Physical state:</b>	solid
<b>Form:</b>	powder
<b>Odor:</b>	None.
<b>Odor threshold:</b>	No data available
<b>Flash point</b>	Not applicable
<b>Auto-ignition temperature:</b>	Not relevant
<b>Lower flammable limit (LFL):</b>	Not determined
<b>Upper flammable limit (UFL):</b>	0.02 %(V)
<b>pH:</b>	No data available
<b>Density:</b>	1,110 kg/m <sup>3</sup> (68 °F (20 °C))solid
<b>Bulk density:</b>	400 - 500 kg/m <sup>3</sup>



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<b>Vapor pressure:</b>	0.01 mmHg (77 °F (25 °C))(Method: OECD Test Guideline 104)
<b>Vapor density:</b>	No data available
<b>Boiling point/boiling range:</b>	Decomposes before boiling.
<b>Melting point/range:</b>	214 - 221 °F (101 - 105 °C)
<b>Freezing point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Solubility in water:</b>	318 mg/l 68 °F (20 °C) (Method: OECD Test Guideline 105)
<b>Solubility in other solvents: [qualitative and quantitative]</b>	Methanol 18 g/l 32 °F (0 °C)  49.6 g/l 68 °F (20 °C)  160.6 g/l 104 °F (40 °C)  Ethanol 5.8 g/l 32 °F (0 °C)  20.4 g/l 68 °F (20 °C)  71.5 g/l 104 °F (40 °C)  Acetone (decomposition)
<b>Viscosity, dynamic:</b>	No data available
<b>Particle size:</b>	98 mm
<b>Oil/water partition coefficient:</b>	No data available
<b>Self-Accelerating Decomposition Temperature (SADT):</b>	122 °F (50 °C)
<b>Thermal decomposition</b>	No data available
<b>Flammability:</b>	See GHS Classification in Section 2

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**AZDN E****10. STABILITY AND REACTIVITY****Stability:**

Refrigeration required. This material is chemically unstable and should only be handled under specified conditions. See HANDLING AND STORAGE section of this SDS for specified conditions.

**Hazardous reactions:**

None known.

**Materials to avoid:**

Ketones  
Aldehydes  
Alkali metals  
Heptane

**Conditions / hazards to avoid:**

Keep away from heat and sources of ignition. SADT - Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generate a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product.

**Hazardous decomposition products:**

Thermal decomposition giving flammable and toxic products :

Nitrogen

Tetramethylsuccinic acid dinitrile

At normal temperatures <25 C, this product exhibits low rate decomposition (0.6% per month) liberating tetramethylsuccinonitrile - TMSN (CAS #3333-52-6) and nitrogen.

Temperatures at or above SADT can result in the release of hazardous decomposition products which are flammable and may autoignite.

**11. TOXICOLOGICAL INFORMATION****Data for AZDN E****Acute toxicity****Oral:**

Harmful if swallowed. (Rat) LD50 between 300 - 2,000 mg/kg. signs: nervous system effects

**Dermal:**

Practically nontoxic. (Rabbit) LD50 > 5,010 mg/kg.

No deaths occurred. (Rat) LD0 > 2,000 mg/kg.

**AZDN E****Inhalation:**

No deaths occurred. (Rat) 4 h LC0 > 12 mg/l. signs: Central nervous system effects, Eye irritation (dust)

Harmful if inhaled. 4 h Acute toxicity estimate > 1.9 mg/l. (dust)

**Skin Irritation:**

Not irritating. (Rabbit) Irritation Index: 0/8.

**Eye Irritation:**

Causes mild eye irritation. (Rabbit) Irritation Index: 4/110.

**Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. No skin allergy or irritation was observed.

**Repeated dose toxicity**

Repeated oral administration to rat, dog / affected organ(s): Liver, Kidney / signs: changes in organ structure or function, changes in organ weights, reduced body weight

**Genotoxicity****Assessment in Vitro:**

No genetic changes were observed in a laboratory test using: bacteria, animal cells

**Assessment in Vivo:**

Genetic changes were observed in a laboratory test using: Mouse

**Reproductive effects**

Reproduction Test. Oral (Rat) / No toxicity to reproduction. / (No birth defects were observed.)

**Other information**

Under normal processing conditions, this product will release fume and/or vapor of variable composition, possibly including tetramethylsuccinonitrile (TMSN).

**12. ECOLOGICAL INFORMATION****Chemical Fate and Pathway**

Data on this material and/or a similar material are summarized below.

**Data for AZDN E****Stability in water:**

Half-life 7,296 h (Hydrolyses slowly.)

**Biodegradation:**

Not readily biodegradable. (28 d) < 10 %

**Octanol Water Partition Coefficient:**

log Pow = 1.1

**Ecotoxicology**

Data on this material and/or a similar material are summarized below.

**Data for AZDN E****Aquatic toxicity data:**

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Practically nontoxic. static test / Danio rerio (zebra fish) 96 h EC50 between 100 - 500 mg/l

**Aquatic invertebrates:**

Practically nontoxic. Daphnia magna (Water flea) 48 h EC50 > 367 mg/l

**Algae:**

Toxic. Pseudokirchneriella subcapitata (green algae) 72 h IC r50 4.5 mg/l

**Microorganisms:**

Practically nontoxic. Respiration inhibition of activated sludge / Activated sludge 3 h NOEC (Respiration inhibition) > 1,000 mg/l

**Chronic toxicity to aquatic invertebrates:**

Reproduction Test / Daphnia magna (Water flea) 21 d NOEC 2.2 mg/l

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal:**

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

**14. TRANSPORT INFORMATION**

**US Department of Transportation (DOT)**

UN Number : 3234  
 Proper shipping name : Self-reactive solid type C, temperature controlled  
 Technical name : (2,2-Azodi(isobutyronitrile))  
 Class : 4.1  
 Packaging group : II  
 Marine pollutant : no  
 Control temperature : 104 °F (40 °C)  
 Emergency temperature : 113 °F (45 °C)

**International Maritime Dangerous Goods Code (IMDG)**

UN Number : 3234  
 Proper shipping name : SELF-REACTIVE SOLID TYPE C, TEMPERATURE CONTROLLED  
 Technical name : (AZO-2,2' DI(ISOBUTYRONITRILE))  
 Class : 4.1  
 Marine pollutant : no  
 Control temperature : 104 °F (40 °C)  
 Emergency temperature : 113 °F (45 °C)

**15. REGULATORY INFORMATION**

**Chemical Inventory Status**

EU. EINECS	EINECS	Conforms to
United States TSCA Inventory	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	This product contains one or several components listed in the Canadian NDSL list. All other components are on the DSL list.
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Conforms to

**United States – Federal Regulations**

**SARA Title III – Section 302 Extremely Hazardous Chemicals:**

<u>Chemical name</u>	<u>CAS-No.</u>	<u>SARA Reportable Quantities</u>	<u>SARA Threshold Planning Quantity</u>
	126-98-7	1000 lbs	500 lbs
Propanenitrile, 2-methyl-	78-82-0	1000 lbs	1000 lbs

**SARA Title III - Section 311/312 Hazard Categories:**

Acute Health Hazard, Fire Hazard, Reactivity Hazard

**SARA Title III – Section 313 Toxic Chemicals:**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):**

<u>Chemical name</u>	<u>CAS-No.</u>	<u>Reportable quantity</u>
	126-98-7	1000 lbs
Propanenitrile, 2-methyl-	78-82-0	100 lbs

**United States – State Regulations**

**New Jersey Right to Know**

<u>Chemical name</u>	<u>CAS-No.</u>
	78-67-1

**New Jersey Right to Know – Special Health Hazard Substance(s)**

<u>Chemical name</u>	<u>CAS-No.</u>
	78-67-1

**Pennsylvania Right to Know**

<u>Chemical name</u>	<u>CAS-No.</u>
	78-67-1

**California Prop. 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

**16. OTHER INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3.**

- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H332 Harmful if inhaled.
- H401 Toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Miscellaneous:

Grades: AZDN, AZDN E

Other information: Refer to National Fire Protection Association (NFPA) Code 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

**Latest Revision(s):**

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Reference number: 00000023663  
Date of Revision: 05/06/2016  
Date Printed: 07/23/2016

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, ARKEMA expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

*Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.*

*It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies) It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.*